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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,255	10/27/2003	Enrique J. Klein	020460-000750US	4707

60168 7590 09/25/2007

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EXAMINER	
STEWART, ALVIN J	

ART UNIT	PAPER NUMBER
3738	

MAIL DATE	DELIVERY MODE
09/25/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/695,255	KLEIN, ENRIQUE J.	
	Examiner	Art Unit	
	Alvin J. Stewart	3738	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 September 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *12,14,16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *12,14 and 16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Arguments

Applicant's arguments filed 03/05/07 have been fully considered but they are not persuasive.

The Examiner has given weight to the new limitations. However, the Examiner still believes that the prior art reads on the new limitations.

Regarding the multiple hinges, the three references clearly disclose multiple hinges in each cylindrical sections.

Regarding the S-shaped connectors emerging angularly in a non-axial direction, see the Richter reference Figure 11.

Regarding the S-shaped connectors on the cylindrical wall section that are spaced apart at least two hinges apart, see attachment A.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 12, 14, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jang US Patent 6,770,088 B1 in view of Richter US Patent 5,807,404, and in further view of Globerman US Patent 5,776,161.

Jang discloses a plurality of different embodiments having catheter/prosthesis assembly (see Fig. 11) comprising a delivery balloon (146), an expandable body (10, see Fig. 9B, 9C &

9D) having a first end (194), a second end (198), a plurality of interconnected cylindrical wall sections (86 & 24) and a plurality of S-shaped connectors (26).

Regarding the S-shaped connectors, the first and second ends of the connectors each emerge laterally from the wall section. Figs. 9B, 9C & 9D clearly disclose the connectors emerging from the lateral surface of each of the cylindrical wall sections. The Examiner interpreted the lateral surface of the cylindrical wall sections as the wall created from the thickness of the stent sections (as shown in Fig. 9D). The independent claims do not have sufficient structural limitations in order to overcome the Examiner's interpretation. In order to overcome the rejection, the Applicant's representative has to add positive structure limitations showing that the two ends of the S-shaped connectors emerge angularly with respect to a longitudinal axis of the stent or the cylindrical wall sections. However, the embodiment of Figs. 9A-9D of the Jang reference does not disclose S-shaped connectors emerging laterally with respect to a longitudinal axis of the wall section and does not disclose individual S-shaped connectors in each successive group that do not overlap in an axial direction.

The Jang reference and the Richter reference teach a stent having a plurality of connectors emerging laterally with respect to a longitudinal axis of a wall section (see Figs. 6A-7C of the Jang reference and Figs. 1-11 and col. 6, lines 57-60 of the Richter reference) for the purpose of increasing the flexibility of the connectors and in general of the stent.

Globerman discloses a stent having a plurality of connectors in each successive group that do not overlap in an axial direction for the purpose of creating flexibility and allow easily pass through and along highly curved body vessels (see col. 3, lines 6-20).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the embodiment of the Jang reference with another embodiment in the Jang reference or with the s-shaped connector of the Richter reference in order to increase the flexibility of the connectors and in general of the stent and allow easily pass through and along highly curved body vessels.

Regarding the word "angularly" angles are from 0 degrees to 360 degrees, therefore, the S-shaped connectors emerge angularly with respect to a longitudinal axis.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alvin J. Stewart whose telephone number is 571-272-4760. The examiner can normally be reached on Monday-Friday 7:00AM-5:30PM(1 Friday B-week off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Corrine McDermott can be reached on 571-272-4754. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A. Stewart

ALVIN J. STEWART
PRIMARY EXAMINER
Art Unit 3738

May 14, 2007.

Attachment A.

US005776161A

United States Patent [19]

Globerman

[11] Patent Number: 5,776,161

[45] Date of Patent: Jul. 7, 1998

[54] **MEDICAL STENTS, APPARATUS AND METHOD FOR MAKING SAME**

[75] Inventor: **Oren Globerman**, Holon, Israel

[73] Assignee: **Instent, Inc.**, Eden Prairie, Minn.

[21] Appl. No.: **543,337**

[22] Filed: **Oct. 16, 1995**

[51] **Int. Cl.**[6] **A61M 29/00**

[52] **U.S. Cl.** **606/194**; 606/192; 623/1

[58] **Field of Search** 606/192, 194, 606/198, 191; 623/1, 12

[56] **References Cited**

U.S. PATENT DOCUMENTS

4,776,337	10/1988	Palmaz	606/198
4,816,028	3/1989	Kapadia et al.	623/12
5,178,618	1/1993	Kandarpa	606/195
5,282,824	2/1994	Gianturco	606/198
5,366,473	11/1994	Winston et al.	623/12
5,383,892	1/1995	Cardon et al.	606/198
5,449,373	9/1995	Pinchasik et al.	606/198
5,514,154	5/1996	Lau et al.	606/194
5,591,197	1/1997	Orth et al.	606/191

Primary Examiner—Michael Buiz
Assistant Examiner—Patrick W. Rasche
Attorney, Agent, or Firm—Levisohn, Lerner, Berger & Langsam

[57] **ABSTRACT**

An expandable stent and stent graft having a small initial diameter, flexibility along its longitudinal axis prior to expansion and a large expanded and rigid Local strain on the stent material is minimized, as and after the balloon is expanded. More particularly, the stent has rotation joints having minimal strain during stent expansion. The stent is substantially the same length before and after expansion and being flexible longitudinally when constrained, it is easy to locate. A method of manufacturing stents is described comprising rotation of a tube beneath a moving film, with light passing through the film onto the tube, at selected locations. A laser scanning system for stent manufacture is also disclosed.

25 Claims, 12 Drawing Sheets